

*Amendment relating to SN 10/802336*

*May 5th, 2005*

Amendments to the Abstract

The abstract is amended to read as follows:

*ABSTRACT*

*A general method is disclosed for using distance sensors to measure the surface profile and twist of objects, even in the presence of rigid-body motions in the measurement directions between the surface and the sensors. The method involves making multiple sequential measurements from a group of sensors while the object moves longitudinally relative to the sensors. The surface height features of the measured object appear in delayed sequence as the observed surface moves longitudinally relative to the sensor array. However, any rigid-body motions in the measurement directions appear simultaneously at all sensors. Mathematical procedures are used to separate the delayed and simultaneous components of the measurements, from which the surface height profile is determined. The invention can handle many different measurement types, including simultaneous measurement of the surfaces of two-sided objects, measurement of surface twist and two-dimensional surface scanning.*

A replacement abstract sheet is enclosed herewith.